510(k)

## Attachment 1

MAY 2 4 2006

# Summary of Safety and Effectiveness

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This 510(k) summary of Safety and Effectiveness information is submitted in accordance with the requirements of 21 CFR Part 807.87(h)

### General Information:

Product Name:

Superopen 0.35T

Product Model:

NSM-P035

CFR Section:

21 CFR Part 892.1000

Magnetic resonance diagnostic device

Classification Name:

System, Magnetic Resonance Imaging

Product Code:

LNH

Device Class:

Class II

Applicable Standard:

IEC60601-1, Medical electrical equipment - Part 1: General

Requirements for Safety

IEC60601-2-33, Medical electrical equipment – Part 2-33: Particular requirements for the safety of magnetic resonance equipment for

medical diagnosis

21 CFR Subchapter J, Radiological Health

IEC60825-1, Safety of laser products-Part1: Equipment classification,

requirement and user's guide

DICOM 3.0

NEMA MS Series (MS1 – MS8)

Manufacture:

Philips and neusoft medical systems Co.,Ltd.

Neusoft Park, Hun Nan Industrial Area, Shenyang 110179, China

Distributor:

Neusoft Medical Systems Co., Ltd.

No.3-11, Wenhua Road, Heping District, Shenyang, 110004, China

Submitter:

Contact: Tian Yanfang

Title: Manager of Quality Management Department

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Summary prepared: April 18, 2006

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## Safety and Effectiveness information

### Intended Uses:

The Superopen 0.35T(Modified) is intended to produce images that reflect the spatial distribution of protons (hydrogen nuclei) exhibiting magnetic resonance. The NMR properties that determine the image appearance are proton density, spin-lattice relaxation time (T1), spin-spin relaxation time (T2) and flow. When interpreted by a trained physician, these images provide information that can be useful in determining a diagnosis.

## **Device Description:**

The Superopen 0.35T(Modified) is a 0.35T permanent magnet MRI system. The magnet is mainly made of NdFeB material. The system software based on Windows (TM) is an interactive program with user-friendly interface. Its functions cover scanning control, image reconstruction and image/archive management and maintenance.

#### Predicated Device:

K030918: Superopen 0.35T

## Statement of Substantial Equivalence:

The Superopen 0.35T (Modified) is of comparable type and substantially equivalent to the Superopen 0.35T (K030918) in that they are similar in technology and intended uses. It is a modified product based on the Superopen 0.35T. Both of these systems are open-permanent-magnet MR Imaging System, use Gradient Subsystem to provide controlled and uniform gradient magnet fields in the X, Y and Z planes, and use RF Subsystem to complete the function of RF signal transmitting/receiving and processing. Image reconstruction is controlled by console's computer that has an interactive user interface, and the system produces 2D and 3D image that can be filmed or electronically stored for future review. Both of these systems have the traditional MRI unit.

# **DEPARTMENT OF HEALTH & HUMAN SERVICES**



Food and Drug Administration 9200 Corporate Blvd. Rockville MD 20850

# MAY 2 4 2006

Mr. Tian Yanfang Manager of Quality Management Department Neusoft Medical Systems Co., LTD No. 3-11, Wenhua Road, Heping District Shenyang, Liaoning, 110004 P.R. CHINA

Re: K061132

Trade/Device Name: Superopen 0.35T Regulation Number: 21 CFR 892.1000

Regulation Name: Magnetic resonance diagnostic device

Regulatory Class: II Product Code: LNH Dated: April 18, 2006 Received: April 24, 2006

## Dear Mr. Yanfang

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (Premarket Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the <u>Code of Federal Regulations</u>, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.



Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at one of the following numbers, based on the regulation number at the top of this letter:

21 CFR 876.xxxx	(Gastroenterology/Renal/Urology)	240-276-0115
21 CFR 884.xxxx	(Obstetrics/Gynecology)	240-276-0115
21 CFR 892.xxxx	(Radiology)	240-276-0120
Other		240-276-0100

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <a href="http://www.fda.gov/cdrh/industry/support/index.html">http://www.fda.gov/cdrh/industry/support/index.html</a>

Sincerely yours,

Mancy C. Brogdon
Nancy C. Brogdon

Director, Division of Reproductive, Abdominal, and Radiological Devices

Office of Device Evaluation

Center for Devices and Radiological Health

**Enclosure** 

			Attachment 2	Page <u>2</u> of <u>2</u>	
510(k) Number (if Known)	KO6 1132				
Device Name: Superopen 0.35T					
Indications for use:			~		
The Superopen 0.35T(Modified) physiological and clinical inform The MRI system produces transversible display the internal structure of the spatial distribution of protons that determine the image appears relaxation time (T2), and flow. We that can be useful in diagnosis de The indications for use are as follows:	nation obtained non-inverse, coronal, sagittante head, body, or extractions (hydrogen nuclei) enter are proton densionally hen interpreted by a etermination.	nvasively and without t il, oblique, and curved o emities. The images pr xhibiting magnetic reso ty, spin-lattice relaxatio	he use of ionizing cross-sectional in oduced by MRI on on the NM on time (T1), spin	ng radiation.  nages that  system reflect  R properties  n-spin	
Anatomical Region: Hea	d, Body, Spine, Extre	emities			
Nucleus excited: Proton	T1 T2 proton den	sity weighted imaging			
Diagnostic uses:	Diffusion weighte				
	MR Angiography				
Imaging capabilities:	Imaging processin 2D, 3D Spin Echo	-			
maging capacitities.	Short time inversion	•			
		version recovery (FLA	IR)		
	2D,3D Field Echo	(FE) with Spoiler (FESP)			
	2D, 3D Fleid Ecilo 2D FESP Multi-Si				
		Scho Steady State FID	with rephasing		
	gradient (FESS-FI				
	2D, 3D Fast Spin	Echo (FSE)			
	2D, 3D MRCP MR Angiography				
	2D, 3D TOF				
	MTC				
	Echo Planar Imagi				
	Multi-shot SI	E/FE			
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(FLEASE DO NOT WRITE D	EBOW TIME EINE	CONTINUE ON MINO			
Concurre David h. Sa	ence of CDRH, Office	e of Device Evaluation	(ODE)		
(Division Sign-Off)			\		
Division of Reproductive, Abdominal, and					
Radiological Devices	anu	Prescription Use			
510(k) Number <u> </u>	132	(Per 21 CFR 801.10	99)		